September 26, 2003
1420 East 6th Ave.
P.O. Box 200701
Helena, MT 59620-0701

Environmental Quality Council
Montana Department of Environmental Quality
Montana Department of Fish, Wildlife and Parks
Fisheries Division
Endangered Species Coordinator
Great Falls Office
Montana State Library, Helena
MT Environmental Information Center
Montana Audubon Council
Lewis and Clark Conservation District
U.S. Army Corp of Engineers, Helena
U.S. Fish and Wildlife Service, Helena
State Historic Preservation Office, Helena
US Bureau of Reclamation, P.O. Box 30137, Billings, MT 59107-0137
Pat Barnes Chapter Trout Unlimited, Helena
David Brown, 4510 Harmony Lane, Helena 59601
Diehl Ranch Company, P.O. Box 779, East Helena, MT 59635
Jay and Sharon Merritt, 3680 Merritt Road, Helena, MT 59602

Ladies and Gentlemen:

Please find enclosed an Environmental Assessment (EA) prepared for the Future Fisheries Improvement Program. The Program tentatively plans to provide partial funding to a stream restoration project calling for the return of Merritt Spring Creek, a tributary to Lake Helena, to its historic channel. The project also calls for the restoration of the dimension, pattern and profile of a 6,200-foot channelized reach of the stream located upstream of Merritt Lane on property own by David Brown. The two mile reach of stream involved in this proposed project is located approximately seven miles northeast of the city of Helena between Harmony Road and the confluence with Lake Helena.

Please submit any comments that you have by 5:00 P.M., October 27, 2003 to the Department of Fish, Wildlife and Parks in Helena at the address listed above. Completion of this project is contingent upon approval being granted by the Fish, Wildlife and Parks Commission. If you have any questions, feel free to contact me at (406) 444-2432. Please note that this draft EA will be considered as final if no substantive comments are received by the deadline listed above.

Sincerely,

Mark Lere, Program Officer
Habitat Protection Bureau
Fisheries Division
e-mail: mlere@state.mt.us

Lewis + Clark
Future Fisheries

ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife and Parks
Merritt Spring Creek Channel Restoration Project

General Purpose: The 1995 Montana Legislature enacted statute 87-1-272 through 273 that directs the Department to administer a Future Fisheries Improvement Program. The program involves providing funding for physical projects to restore degraded fish habitat in rivers and lakes for the purpose of improving wild fisheries. The legislature established an earmarked funding account to help accomplish this goal. The Future Fisheries Improvement Program is proposing to provide partial funding for a project calling for re-activating a two-mile reach of Merritt Spring Creek to its historic channel and restoring the dimension, pattern and profile of the upper 6,200-foot channelized reach located between Harmony Road and Merritt Lane. The project site is located approximately six miles northeast of the city of Helena between Harmony Road and the confluence with Lake Helena in Lewis and Clark County (Attachment 1).

I. Location of Project: This project will be conducted on a two mile reach of Merritt Spring Creek located approximately 6 miles northeast of the city of Helena within Township 11 North, Range 2 West, Section 30 in Lewis and Clark County.

II. Need for the Project: One goal within Montana Fish, Wildlife and Parks six-year operations plan for the fisheries program is to "restore and enhance degraded fisheries habitats" by implementing habitat restoration projects and administering the Future Fisheries Improvement Program to restore important habitats on private and public lands. This proposed project would help meet this goal.

Merritt Spring Creek was diverted almost entirely into a drain ditch system in association with the construction of Canyon Ferry Dam during the mid-1950's. The Helena Valley Irrigation Project associated with the completion of Canyon Ferry Dam involved the construction of a series of tiled drains combined with the diversion of area streams into several deeply incised drain ditches to create additional irrigated hay ground around Lake Helena. Controlled by a headgate structure located near Harmony Road, the flow in Merritt Spring Creek is diverted down one of these incised drain ditches to the confluence with Lake Helena. The dewatered historic channel also was straightened in the past between Harmony Road and Merritt Lane to further increase available cropland. Additionally, the riparian corridor associated with the historic channel has been degraded by past livestock use. The nearly complete diversion of Merritt Spring Creek into an incised drain ditch, coupled with past channelization efforts and over-grazing by livestock, have resulted in a drainage that is nearly devoid of fish habitat.

III. Scope of the Project:

This project calls for returning the flow of Merritt Spring Creek to the historic channel, coupled with reconstructing a 6,200-foot channelized reach between Harmony Road and Merritt Lane. The project also calls for installing fencing and planting vegetation to enhance the riparian corridor. The proposed channel reconstruction will be completed before water is returned to the historic channel and will involve restoring the channel to a proper dimension, pattern and profile (Attachment 2). The preliminary design calls for constructing a channel with a bankfull width of approximately 6.5-feet, a bankfull depth at 1.4 feet, a

floodprone width between 20 and 60 feet, and an average slope of 0.15%. Fencing would be installed in a manner to protect the riparian corridor from livestock grazing with a minimum 50-foot buffer on either side of the stream. A minimum of 100 willow clumps will be transplanted along the newly constructed stream margin and numerous willow cuttings will be sprigged into the stream bank. This project is expected to cost $24,000.00. Of this total, the Future Fisheries Improvement Program would be contributing up to $12,000.00.

IV. Environmental Impact Checklist:

Please see attached checklist.

V. Explanation of Impacts to the Physical Environment

1. Terrestrial and aquatic life and habitats.

Returning flow into the historic channel of Merritt Spring Creek - coupled with restoring a 6,200-foot channelized reach of the stream to a proper dimension, pattern and profile and enhancing the riparian community with fencing and re-vegetation - is expected to create significantly healthier habitat for aquatic life by increasing the length of the channel, improving environmental diversity, and enhancing spawning and rearing habitat. A healthier aquatic habitat is expected to enhance salmonid recruitment to Lake Helena, as well as resident fish populations in the spring creek. Habitat for riparian dependent wildlife also would be improved by providing better management of livestock grazing within the riparian corridor through fencing and enhancing the woody riparian community along the stream margin.

2. Water quantity, quality and distribution.

Short-term increases in turbidity will occur during project construction. To minimize turbidity, construction of the restored stream reach would be completed "in the dry" before water is turned in from the drainage ditch. In addition, operation of equipment in the active stream channel will be minimized to the extent practicable. The Department of Environmental Quality will be contacted to determine narrative conditions required to meet short-term water quality standards and protect aquatic biota. A 310 permit will be obtained from the local conservation district and the U.S. Army Corp of Engineers will be contacted to determine the need to meet 404 provisions of the Clean Water Act.

In the long term, this project is expected to improve water quality in Merritt Spring Creek by creating a healthier riparian corridor.

3. Geology and soil quality, stability and moisture.

Soils along the stream margin would be disturbed during construction of the new channel, but would quickly stabilize following proposed re-vegetation efforts. Re-vegetation efforts would involve placement of salvaged sod and seeding with native sedges and grasses, transplanting large willow clumps and sprigging willow cuttings.

4. Vegetation cover, quantity and quality.

Riparian vegetation and cover, primarily non-native grasses, would be disturbed during the period of construction. However, proposed re-vegetation efforts, in conjunction with fencing the riparian corridor, would result in an overall improvement to the riparian vegetative community.

5. Aesthetics.

In the short term, aesthetics would be adversely impacted due to ground disturbance and the presence of heavy construction equipment. In the long term, aesthetics would be enhanced by returning the spring creek to its historic channel and restoring the dimension, pattern and profile of a 6,200-foot reach of the stream that had been straightened in the past. In addition, the riparian vegetative community would be enhanced by riparian plantings and by improved grazing management with the installation of riparian fencing.

9. Historic and archaeological sites

This reach of Merritt Spring Creek has been previously disturbed by channel straightening and farming activities. As a result, there is a very low likelihood that cultural properties will be impacted as a result of this proposed project. Should cultural material be inadvertently discovered during the project, the State Historic Preservation Office will be contacted and the site will be investigated.

VI. Explanation of Impacts on the Human Environment.

7. Access to & quality of recreational activities.

Merritt Spring Creek is a tributary to Lake Helena, a body of water created by the indirect impoundment of Prickly Pear Creek by Hauser Dam. Hauser Reservoir supports a very popular recreational fishery, including rainbow trout, brown trout and kokanee. However, the rainbow trout and kokanee populations in Hauser Reservoir are strongly dependent upon hatchery supplementation. Natural reproduction by these fish species is limited due to the lack of suitable spawning habitat found in the tributaries. The intent of this project is to improve habitat conditions in Merritt Spring Creek to enhance recruitment of salmonids to Lake Helena and Hauser Reservoir. This improved recruitment is expected to enhance the recreational fishery in the reservoir system.

VII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no action is taken, Merritt Spring Creek will continue to be nearly devoid of aquatic habitat and will provide little or no recruitment of fish to the reservoir system. The riparian habitat also will remain impaired. Additionally, recreational opportunities associated with fish and wildlife resources will remain reduced and aesthetics will continue to be impaired.

2. The Proposed Alternative

The proposed alternative is designed to restore the aquatic and riparian habitat in Merritt Spring Creek. This alternative would increase the length of the existing channel and would greatly improve the diversity of aquatic habitat in the stream. The intent of the project is to improve spawning and rearing habitat for salmonids in the Hauser/Lake Helena reservoir system and to improve the vegetative community within the riparian corridor. This alternative would improve fish and wildlife habitat, aesthetics and water quality within the project area and would be expected to increase trout populations both in the spring creek and in the Hauser/Lake Helena reservoir system.

VIII. Environmental Assessment Conclusion Section

1. Is an EIS required? No.

We conclude from this review that the proposed activities will have a positive impact on the physical and human environment.

2. Level of public involvement.

The proposed project was reviewed and supported by the public review panel of the Future Fisheries Improvement Program. The proposed project also will be reviewed by the Fish, Wildlife and Parks Commission and will be contingent upon their approval. The Environmental Assessment (EA) is being distributed to all individuals and groups listed on the cover letter. The EA also will be published on Montana Fish, Wildlife and Parks webpage: fwp.state.mt.us.

3. Duration of comment period?

Public comment will be accepted through 5:00 PM on October 27, 2003.

4. Person responsible for preparing the EA.

Mark Lere, Program Officer
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MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS
1420 E 6th Ave, PO BOX 200701, Helena, MT 59620-0701
(406) 444-2535

ENVIRONMENTAL ASSESSMENT

Project Title Merritt Spring Creek Channel Restoration Project

Division/Bureau Fisheries Division -Future Fisheries Improvement
Description of Project The Future Fisheries Improvement Program is proposing to provide partial funding for a project calling for returning a two-mile reach of Merritt Spring Creek to its historic channel and restoring the dimension, pattern and profile of the upper 6,200-foot channelized reach located between Harmony Road and Merritt Lane. The project site is located approximately 6 miles northeast of the city of Helena between Harmony Road and the confluence with Lake Helena in Lewis and Clark County.

POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Terrestrial & aquatic life and habitats			X			X
2. Water quality, quantity & distribution			X			X
3. Geology & soil quality, stability & moisture			X			X
4. Vegetation cover, quantity & quality			X			X
5. Aesthetics			X			X
6. Air quality				X		
7. Unique, endangered, fragile, or limited environmental resources				X		
8. Demands on environmental resources of land, water, air & energy				X		
9. Historical & archaeological sites				X		X

POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Social structures & mores				X		
2. Cultural uniqueness & diversity				X		
3. Local & state tax base & tax revenue				X		
4. Agricultural or industrial production				X		
5. Human health				X		
6. Quantity & distribution of community & personal income				X		
7. Access to & quality of recreational and wilderness activities			X			X
8. Quantity & distribution of employment				X		
9. Distribution & density of population & housing				X		
10. Demands for government services				X		
11. Industrial & commercial activity				X		
12. Demands for energy				X		
13. Locally adopted environmental plans & goals				X		
14. Transportation networks & traffic flows				X		

Other groups or agencies contacted or which may have overlapping jurisdiction Lewis and Clark Conservation District, US Fish and Wildlife Service, US Army Corp of Engineers, Montana Department of Environmental Quality, State Historic Preservation Office

Individuals or groups contributing to this EA Steve Dalbey, MFWP

Recommendation concerning preparation of EIS No EIS required.
EA prepared by: Mark Lere
Date: September 26, 2003